



Chemicals Company
Environmental Affairs Department
P.O. Box 1139R
Morristown, New Jersey 07960

EPA Region 5 Records Ctr.



288543

November 14, 1980

EPA Region V
RCRA Activities
P. O. Box 7861
Chicago, IL 60680

Subject: RCRA Permit Application (Part A)
Allied Chemical Calumet Works
EPA ID #ILD001833714

Dear Sir:

Pursuant to 40 CFR Part 122, we herewith submit the subject permit application including Forms 1 and 3.

The process listing in Form 3, Section III is based on our interpretation of the RCRA regulations and the EPA Guide to the Regulations, and in some cases on discussions with EPA personnel.

The description of hazardous wastes listed in Form 3, Section IV is understood to be a current representation of our operations. However, such description may change as a result of alternate use or variation in raw materials, reagents, treating agents and/or manufacturing process variations.

The facility drawing for Form 3, Section V is our collective recollection at the present time regarding areas of past storage, treatment or disposal operations. We reserve all legal and other rights concerning this matter because of the considerable passage of time since the facility began operations.

If you have any questions about this application, please call the facility contact listed in Form 1.

Very truly yours,

A handwritten signature in cursive script, appearing to read 'R. Sobel'.

R. Sobel, Director
Environmental Control

RS/jp

FORM 1

EPA

ENVIRONMENTAL PROTECTION AGENCY
GENERAL INFORMATION
Consolidated Permits Program
(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER
FIELD 0018337143

GENERAL INSTRUCTIONS
If a permit is required, it is in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

LABEL ITEMS
I. EPA I.D. NUMBER
III. FACILITY NAME
V. FACILITY MAILING ADDRESS
VI. FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

SPECIFIC QUESTIONS	MARK 'X'			SPECIFIC QUESTIONS	MARK 'X'		
	YES	NO	FORM ATTACHED		YES	NO	FORM ATTACHED
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)		X		B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)		X	
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)	X		NOTE	D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)		X	
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)	X		X	F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X		H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X		J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	

III. NAME OF FACILITY

1 SKIP ALLIED CHEMICAL CORP. CALUMET WORKS

IV. FACILITY CONTACT

A. NAME & TITLE (last, first, & title) NIELSEN, C. T. PLANT MANAGER

B. PHONE (area code & no.) 312 933 8810

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX 22260 CARONDOLET AVENUE

B. CITY OR TOWN CHICAGO

C. STATE IL

D. ZIP CODE 60633

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER 12260 CARONDOLET AVENUE

B. COUNTY NAME COOK

C. CITY OR TOWN CHICAGO

D. STATE IL

E. ZIP CODE 60633

F. COUNTY CODE (if known) 031

II. SIC CODES (4-digit, in order of priority)

A. FIRST				B. SECOND			
2 8 1 9 (specify) Sulfuric acid; ammonium thiosulfate; aluminum chloride solution				7 (specify)			
C. THIRD				D. FOURTH			
7 (specify)				7 (specify)			

VIII. OPERATOR INFORMATION

A. NAME												B. Is the name listed in Item VIII-A also the owner?			
8 ALLIED CHEMICAL CORPORATION												<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)										D. PHONE (area code & no.)					
F = FEDERAL		M = PUBLIC (other than federal or state)		P (specify)		C		A		3 1 2		9 3 3		8 8 0 0	
S = STATE		O = OTHER (specify)		M											
P = PRIVATE															
E. STREET OR P.O. BOX															
1 2 2 6 0 CARONDOLET AVENUE															
F. CITY OR TOWN										G. STATE		H. ZIP CODE		IX. INDIAN LAND	
8 CHICAGO										IL		6 0 6 3 3		Is the facility located on Indian lands? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water)										D. PSD (Air Emissions from Proposed Sources)									
9 N IL 0 0 0 2 6 4 0										9 P									
B. UIC (Underground Injection of Fluids)										E. OTHER (specify)									
9 U										(specify) See Attachment No.1									
C. RCRA (Hazardous Wastes)										E. OTHER (specify)									
9 R										(specify)									

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

F9: A/50

XII. NATURE OF BUSINESS (provide a brief description)

Production of sulfuric acid, ammonium thiosulfate, and aluminum chloride solution.

F9: A
51

XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)		B. SIGNATURE		C. DATE SIGNED	
A. H. Eaker Vice President-Process Chemicals				Nov.11, 1980	

COMMENTS FOR OFFICIAL USE ONLY

C											
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FORM 1		EPA		U.S. ENVIRONMENTAL PROTECTION AGENCY		HAZARDOUS WASTE PERMIT APPLICATION		1. EPA I.D. NUMBER	
RCRA						Consolidated Permits Program		FILED 0018337143	
						(This information is required under Section 3005 of RCRA.)			
FOR OFFICIAL USE ONLY									
APPLICATION APPROVED		DATE RECEIVED (yr., mo., & day)		COMMENTS					
II. FIRST OR REVISED APPLICATION									
Place an "X" in the appropriate box in A or B below (mark one box only) to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Item I above.									
A. FIRST APPLICATION (place an "X" below and provide the appropriate date)									
<input checked="" type="checkbox"/> 1. EXISTING FACILITY (See instructions for definition of "existing" facility. Complete item below.)									
<input type="checkbox"/> 2. NEW FACILITY (Complete item below.)									
FOR EXISTING FACILITIES, PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (use the boxes to the left)									
FOR NEW FACILITIES, PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR IS EXPECTED TO BEGIN									
B. REVISED APPLICATION (place an "X" below and complete Item I above)									
<input type="checkbox"/> 1. FACILITY HAS INTERIM STATUS									
<input type="checkbox"/> 2. FACILITY HAS A RCRA PERMIT									
III. PROCESSES - CODES AND DESIGN CAPACITIES									
A. PROCESS CODE - Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, then describe the process (including its design capacity) in the space provided on the form (Item III-C).									
B. PROCESS DESIGN CAPACITY - For each code entered in column A enter the capacity of the process.									
1. AMOUNT - Enter the amount.									
2. UNIT OF MEASURE - For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.									
PROCESS CODE APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY									
PROCESS CODE APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY									
Storage:									
CONTAINER (barrel, drum, etc.) S01 GALLONS OR LITERS									
TANK S02 GALLONS OR LITERS									
WASTE PILE S03 CUBIC YARDS OR CUBIC METERS									
SURFACE IMPOUNDMENT S04 GALLONS OR LITERS									
Disposal:									
INJECTION WELL D79 GALLONS OR LITERS									
LANDFILL D80 ACRE-Feet (the volume that would cover one acre to a depth of one foot) OR HECTARE-METER									
LAND APPLICATION D81 ACRES OR HECTARES									
OCEAN DISPOSAL D82 GALLONS PER DAY OR LITERS PER DAY									
SURFACE IMPOUNDMENT D83 GALLONS OR LITERS									
OTHER (Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Item III-C.)									
UNIT OF MEASURE CODE UNIT OF MEASURE CODE UNIT OF MEASURE CODE									
GALLONS.....G LITERS.....L TONS PER HOUR.....D									
CUBIC YARDS.....Y METRIC TONS PER HOUR.....W									
CUBIC METERS.....C GALLONS PER HOUR.....E									
GALLONS PER DAY.....U LITERS PER HOUR.....H									
ACRE-Feet.....A HECTARE-METER.....F									
ACRES.....B HECTARES.....Q									
EXAMPLE FOR COMPLETING ITEM III (shown in line numbers X-1 and X-2 below): A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.									
DUP 31									
A. PROCESS CODE B. PROCESS DESIGN CAPACITY									
FOR OFFICIAL USE ONLY									
A. PROCESS CODE B. PROCESS DESIGN CAPACITY									
FOR OFFICIAL USE ONLY									
X-1 S 0 2 600 G 5 T 0 4 4.300									
X-2 T 0 3 20 E 6									
1 S 0 1 5,500,000 G 7									
2 S 0 2 70,000,000 G 8									
3 S 0 4 500,000,000 G 9									
4 T 0 1 216,000,000 U 10									

III.5.

A pail (approx. 10 gal.) is used to neutralize sulfuric acid filter cartridges. Approximately 30 gals. per week of sulfuric acid are neutralized in this system. Neutralized waste to main acid water treatment plant.

III.2.

Corrosive liquor is sold for reuse. May require disposal if sales decline in the future.

IV. DESCRIPTION OF HAZARDOUS WASTES

A. EPA HAZARDOUS WASTE NUMBER — Enter the four-digit number from 40 CFR, Subpart D for each listed hazardous waste you will handle. If you handle hazardous wastes which are not listed in 40 CFR, Subpart D, enter the four-digit number(s) from 40 CFR, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

B. ESTIMATED ANNUAL QUANTITY — For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.

C. UNIT OF MEASURE — For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS.....	P	KILOGRAMS.....	K
TONS.....	T	METRIC TONS.....	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:

For listed hazardous waste: For each listed hazardous waste entered in column A select the code(s) from the list of process codes contained in Item III to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed hazardous wastes: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in Item III to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code(s).

2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER — Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

- Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B, C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
- In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.
- Repeat step 2 for each other EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING ITEM IV (shown in line numbers X-1, X-2, X-3, and X-4 below) — A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

WASTE NO.	A. EPA HAZARDOUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES	
				1. PROCESS CODES (enter)	2. PROCESS DESCRIPTION (if a code is not entered in D(1))
X-1	K 0 5 4	900	P	T 0 3 D 8 0	
X-2	D 0 0 2	400	P	T 0 3 D 8 0	
X-3	D 0 0 1	100	P	T 0 3 D 8 0	
X-4	D 0 0 2				included with above

EPA I.D. NUMBER (enter from page 1)												FOR OFFICIAL USE ONLY																	
W	1	1	D	0	0	1	8	3	3	7	1	4	3	1	W	DUP						3	2	DUP					

IV. DESCRIPTION OF HAZARDOUS WASTES (continued)

WASTE NO.	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES															
				1. PROCESS CODES (enter)								2. PROCESS DESCRIPTION (if a code is not entered in D(1))							
1	D 0 0 1	2000	T	S 0 1															
2	D 0 0 2	165,000 000	T	S 0 4 T 0 1															
3	D 0 0 2	0		S 0 2															See Note III.2 on page 2 of 5
4	D 0 0 3																		Included with above
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			
25																			
26																			

EPA ID. NO. (enter from page 1)
FIELD 001833714 36

*Certain facilities at this location are subject to tax exempt bonds issued by Illinois Industrial Pollution Control Financing Authority.

V. FACILITY DRAWING
All existing facilities must include in the space provided on page 5 a scale drawing of the facility (see instructions for more detail). F6: /55

VI. PHOTOGRAPHS
All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail). F6: A/56

VII. FACILITY GEOGRAPHIC LOCATION
LATITUDE (degrees, minutes, & seconds) 41 40 20
LONGITUDE (degrees, minutes, & seconds) 87 33 11

VIII. FACILITY OWNER
☒ A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.
B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER
2. PHONE NO. (area code & no.)
3. STREET OR P.O. BOX
4. CITY OR TOWN
5. ST.
6. ZIP CODE

IX. OWNER CERTIFICATION
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.
*NOTE ABOVE

A. NAME (print or type) A. H. Baker
B. SIGNATURE
C. DATE SIGNED Nov. 11, 1980

X. OPERATOR CERTIFICATION
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)
B. SIGNATURE
C. DATE SIGNED

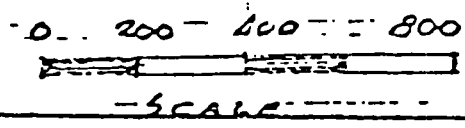
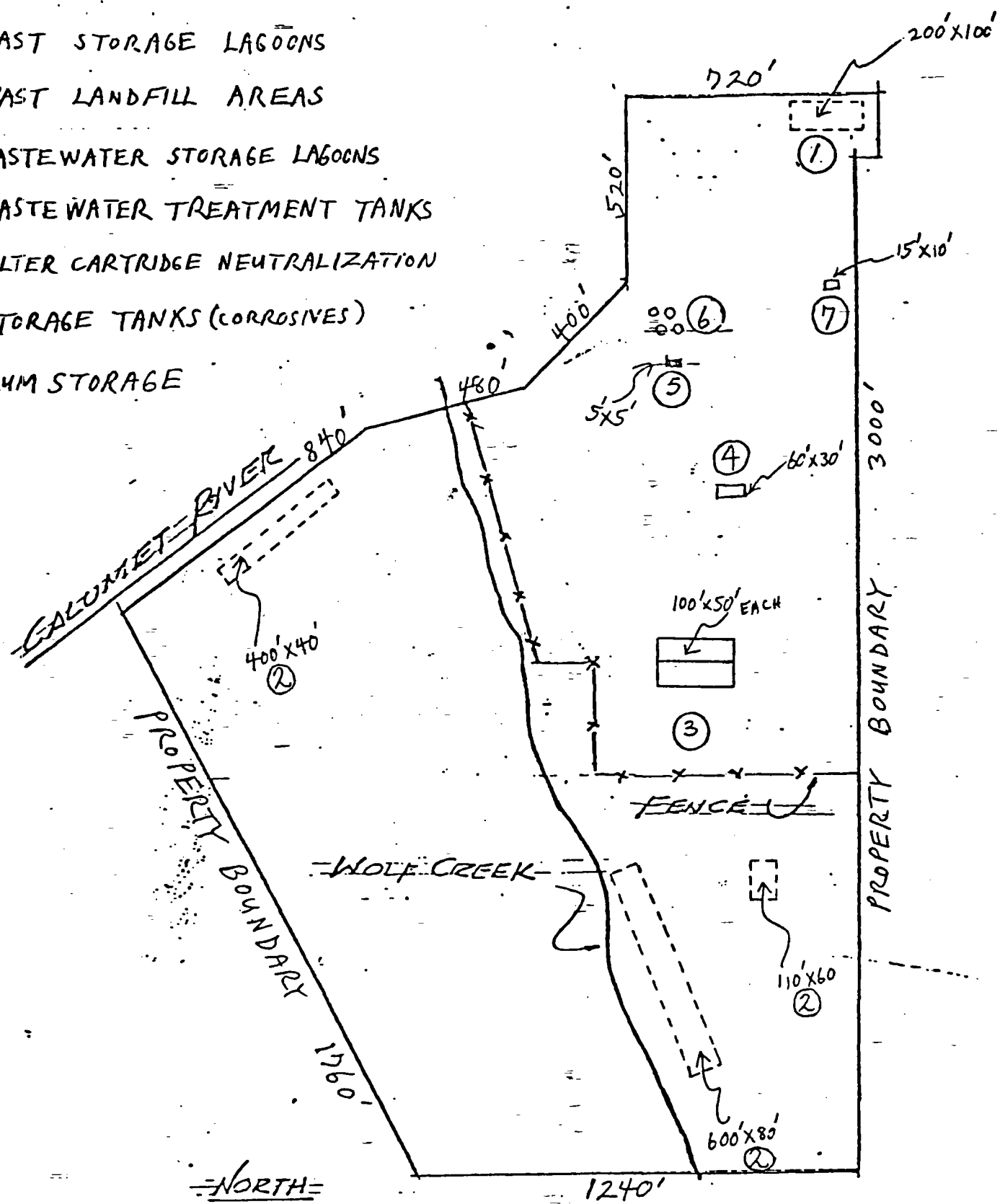
USGS LAKE CALUMET
ILLINOIS - INDIANA
1/2 MINUTE SERIES REV 1973
SCALE 1:24,000



ALLIED CHEMICAL
CALUMET WORKS
LD 001833714
CHICAGO, IL 60633

LEGEND

- ① PAST STORAGE LAGOONS
- ② PAST LANDFILL AREAS
- ③ WASTEWATER STORAGE LAGOONS
- ④ WASTEWATER TREATMENT TANKS
- ⑤ FILTER CARTRIDGE NEUTRALIZATION
- ⑥ STORAGE TANKS (CORROSIVES)
- ⑦ DRUM STORAGE



ILD 001833714
ALLIED CHEMICAL
CALUMET WORKS
CHICAGO, IL 4/18/80

FORM 1, X:

ENVIRONMENTALLY RELATED PERMITS

IEPA Operating Permits:

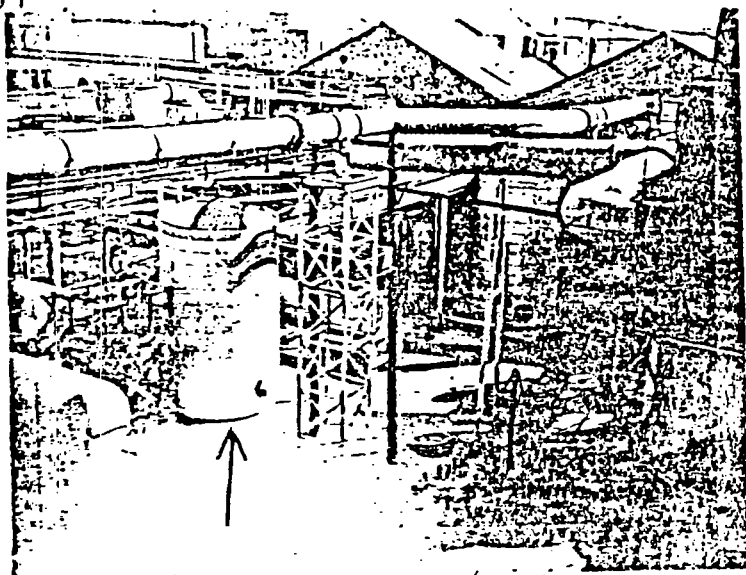
Permit Number	Process
031600ALC AC-OP-77	Aluminum Chloride Plant
031600ALC AC-OP-77	Sodium and Ammonium Salts Plant
031600ALC KRNEIMINC	Koreon Manufacturing Facility
031600ALC Acid Plant	Sulfuric Acid Plant and SO ₃ Recovery Plant
031600ALC Vogt Boiler	Vogt Boiler

IEPA Special Waste Permits:

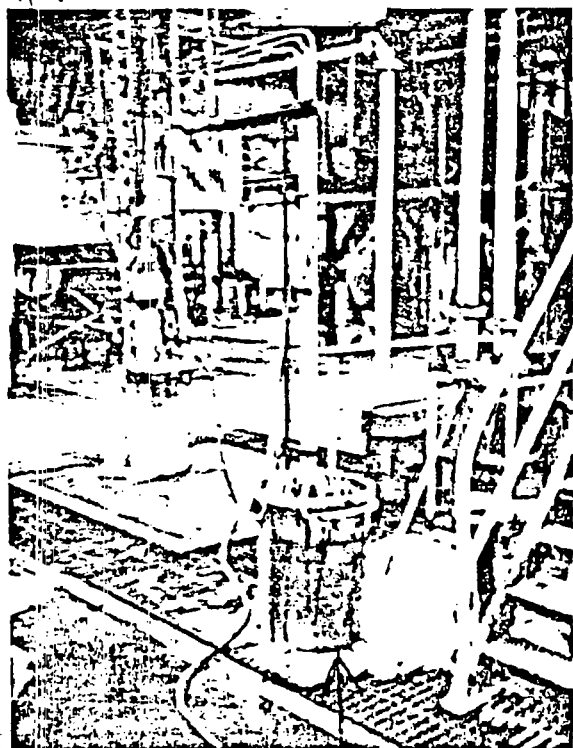
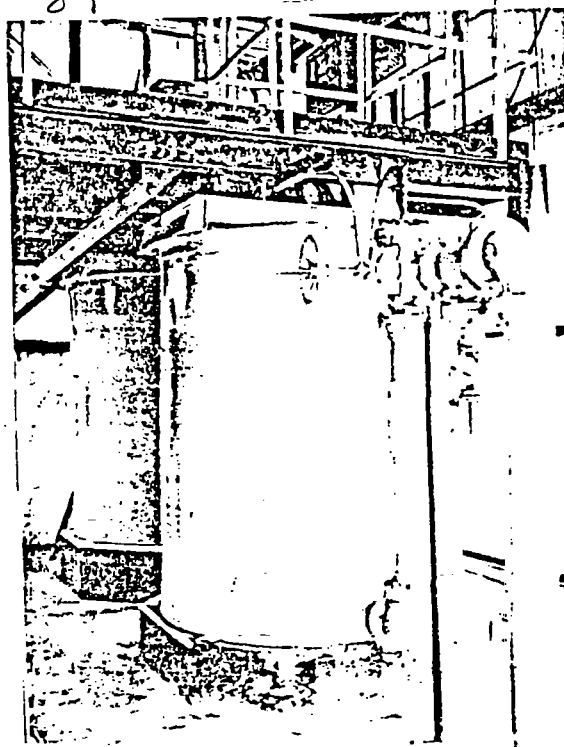
Permit Number	Special Waste
800829	sodium sulfate, bisulfite and sulfite solution
801321	mixed trivalent chrome sulfate/lime/dirt
781482	iron hydroxide
801327	mixed sulfuric acid/soda ash/dirt
791883	hypo filter sludge
791814	chromium sulfate solution residue
782568	sodium bisulfite liquor
792851	aluminum chloride residue

City of Chicago Operating Permit - #28

9/17/80

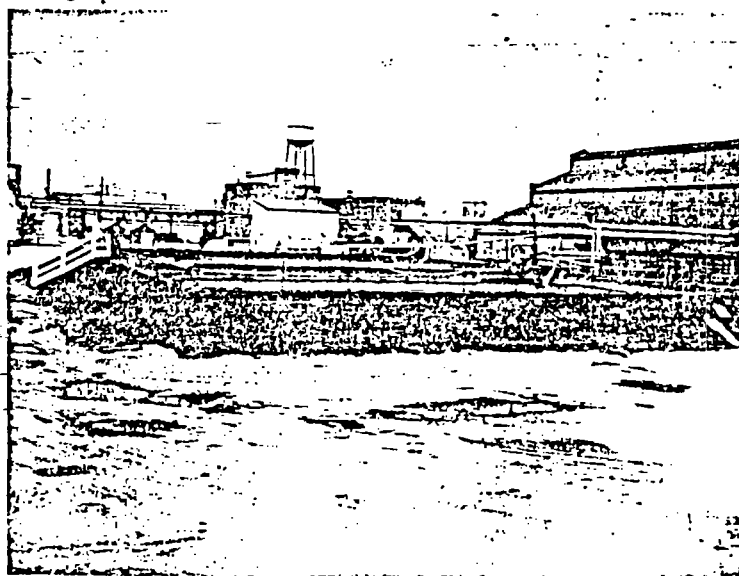


CORROSIVE WASTE STORAGE TANKS



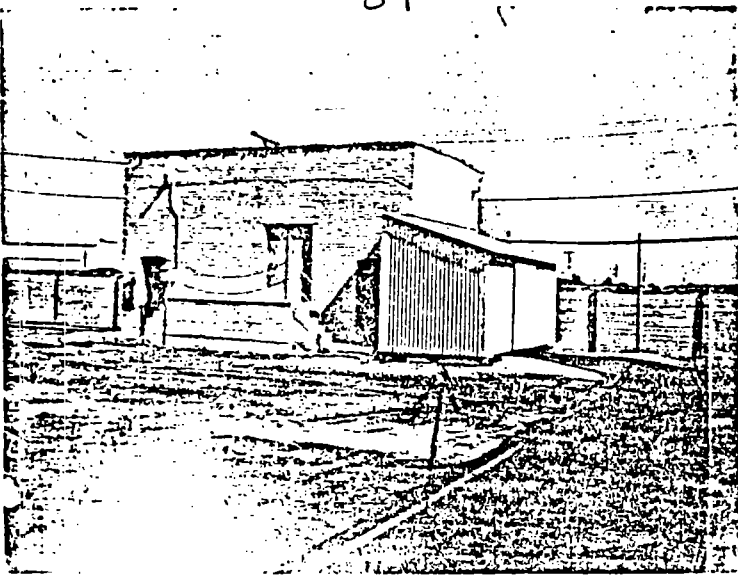
SULFURIC ACID FILTER CARTRIDGE
NEUTRALIZATION SYSTEM

CORROSIVE WASTEWATER
NEUTRALIZATION TANKS



CORROSIVE WASTEWATER STORAGE
IMPOUNDMENTS

81



IGNITABLE WASTE DRUM STORAGE